

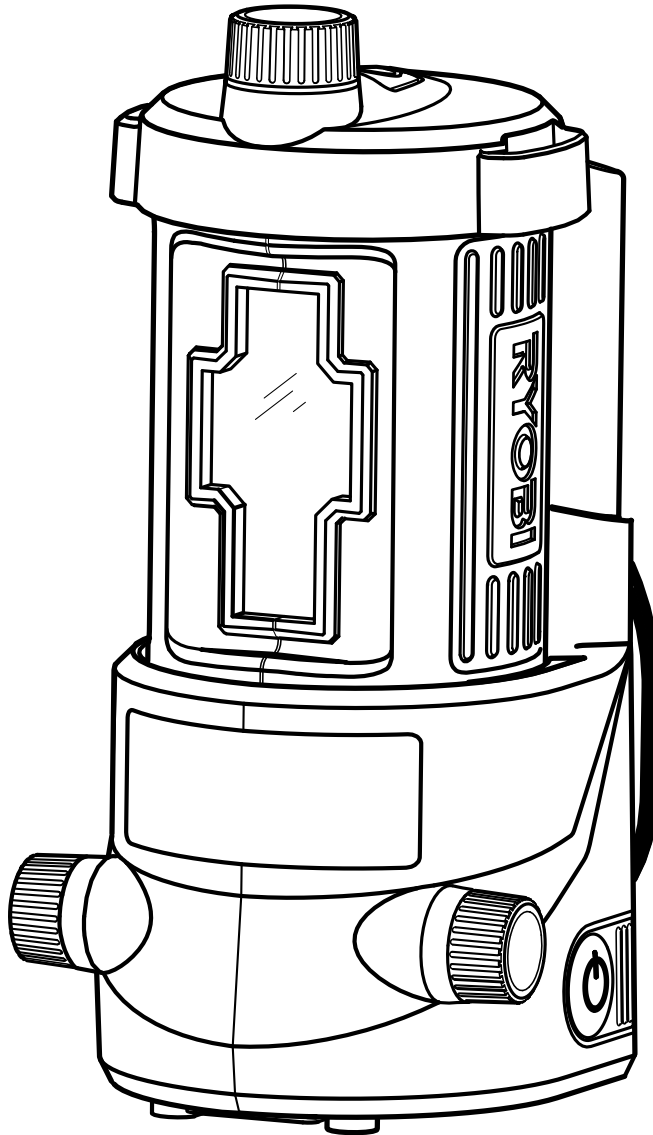


# OPERATOR'S MANUAL

## AIRgrip™ ProCross™ LASER LEVEL

### SELF-LEVELING

#### ELL0006



Your laser level has been engineered and manufactured to our high standard for dependability, ease of operation, and operator safety. When properly cared for, it will give you years of rugged, trouble-free performance.

**WARNING:** To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

Thank you for your purchase.

**SAVE THIS MANUAL FOR FUTURE REFERENCE**

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## INTRODUCTION

This product has many features for making its use more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

**Please visit our website at  
[www.ryobitools.com](http://www.ryobitools.com) to register this product.**

**Model No. ELL0006**

# GENERAL SAFETY RULES

## **WARNING!**

**READ AND UNDERSTAND ALL INSTRUCTIONS.** Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

## **CAUTION:**

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

## **CAUTION:**

The use of an optical instrument with this product will increase eye hazard.











The laser guide radiation used in the laser level attachment is Class IIIa with  $< 5\text{mW}$  and 635 nm wavelengths. These lasers do not normally present an optical hazard, although staring at the beam may cause flash blindness.

- Avoid direct eye exposure when using the laser and do not project the laser beam directly into the eyes of others. Serious eye injury could result.
- Do not remove or deface any product labels. Removing product labels increases the risk of exposure to laser radiation.

- Do not place the unit in a position that may cause anyone to stare into the laser beam intentionally or unintentionally. Serious eye injury could result.
- Do not operate the laser level around children or allow children to operate the product. Serious eye injury could result.
- Always turn the laser level off when not in use. Leaving the product on increases the risk of someone inadvertently staring into the laser beam.
- Do not operate the unit in combustible areas such as in the presence of flammable liquids, gasses, or dust.
- Always ensure the laser beam is aimed at a surface without reflective properties. Shiny reflective materials are not suitable for laser use.
- When using the base, always check to be sure the unit is securely seated. Damage to the product and/or serious injury to the user could result if the unit falls.
- Handle the unit with care. Treat it as you would any other optical device such as a camera or binoculars.
- Avoid exposing the unit to shock, continuous vibration, or extreme hot or cold temperatures. Damage to the product and/or serious injury to the user could result.
- Save these instructions. Refer to them frequently and use them to instruct others who may use this product. If you loan someone this unit, loan them these instructions also.




# SYMBOLS

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watt	Power
min	Minutes	Time
~	Alternating Current	Type of current
≡	Direct Current	Type or a characteristic of current
$n_0$	No Load Speed	Rotational speed, at no load
	Class II Construction	Double-insulated construction
.../min	Per Minute	Revolutions, strokes, surface speed, orbits etc., per minute
	Wet Conditions Alert	Do not expose to rain or use in damp locations.
	Read The Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye Protection	Always wear safety goggles or safety glasses with side shields and, as necessary, a full face shield when operating this product.
	Safety Alert	Precautions that involve your safety.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	Hot Surface	To reduce the risk of injury or damage, avoid contact with any hot surface.

# SYMBOLS

The following signal words and meanings are intended to explain the levels of risk associated with this product.

SYMBOL	SIGNAL	MEANING
	<b>DANGER:</b>	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.
	<b>WARNING:</b>	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
	<b>CAUTION:</b>	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
	<b>CAUTION:</b>	(Without Safety Alert Symbol) Indicates a situation that may result in property damage.

## SERVICE

This unit has no serviceable parts. If the unit fails due to normal wear and tear within two years of purchase, return with original receipt for a replacement unit at no charge. Call 1-800-525-2579 for your nearest **AUTHORIZED SERVICE CENTER**.



### **WARNING:**

To avoid serious personal injury, do not attempt to use this product until you read thoroughly and understand completely the operator's manual. If you do not understand the warnings and instructions in the operator's manual, do not use this product. Call Ryobi customer service for assistance.

## SAVE THESE INSTRUCTIONS

# FEATURES

## PRODUCT SPECIFICATIONS

Recommended Use.....	Indoors
AIRgrip Power Supply .....	2 AA, 1.5 Volt Alkaline Batteries
Laser Power Supply .....	2 AA, 1.5 Volt Alkaline Batteries
Battery Life for AIRgrip Vacuum.....	4 Hours Continuous Use
Battery Life for Laser.....	40 Hours Continuous Use
Operating Temperature.....	32°F to 104°F
Laser.....	Class IIIa, < 5mW, 635 nm
Length of Laser Line.....	Up to 50 ft. each direction
Horizontal Accuracy .....	± 1/4 in. at 25 ft.
Vertical Accuracy.....	± 1/4 in. at 25 ft. when measured at ± 4 ft. from center of crosshair laser on vertical surface
Laser Coverage .....	120° in Static Position, Rotating Head Covers 270°

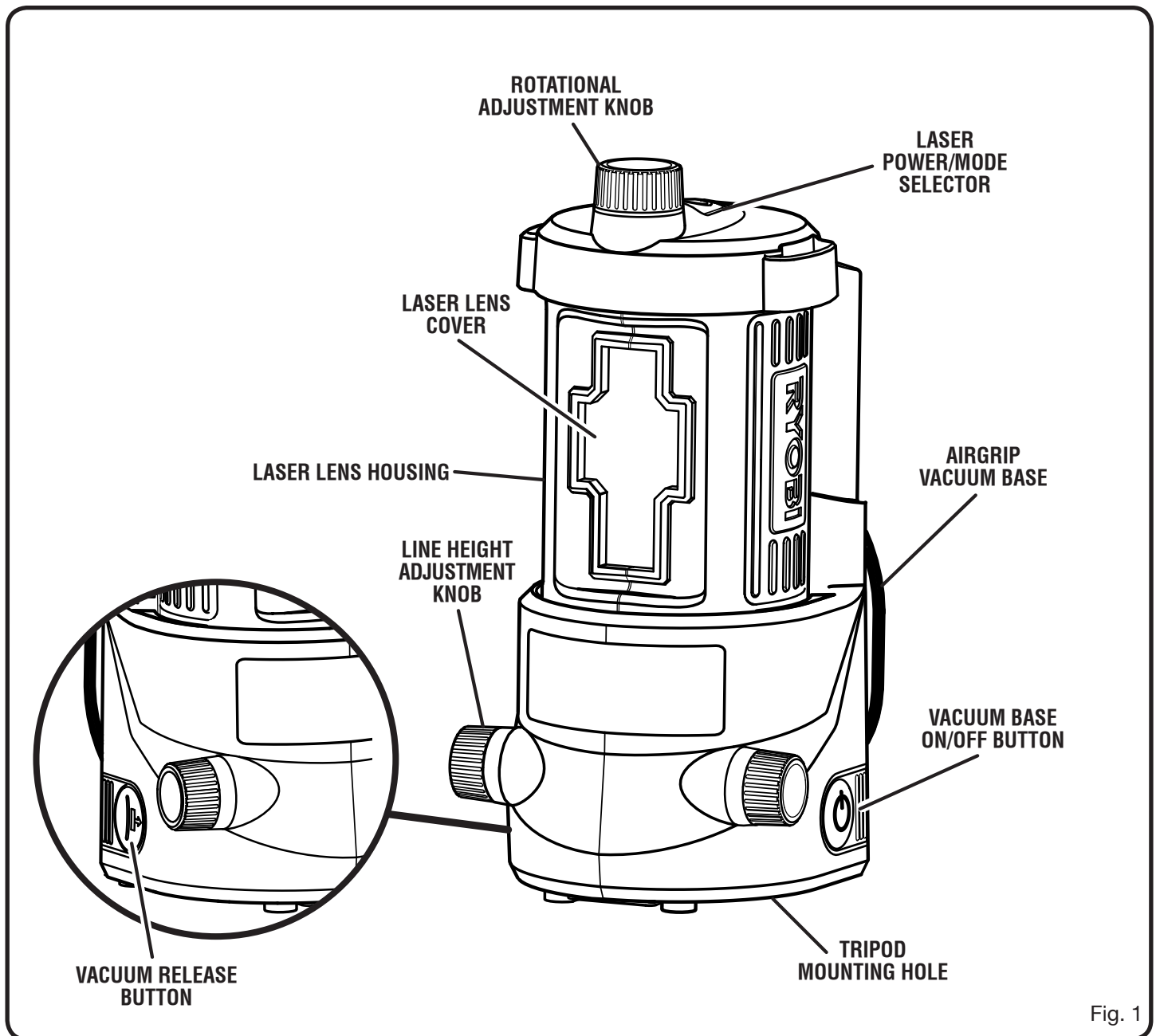


Fig. 1

# FEATURES

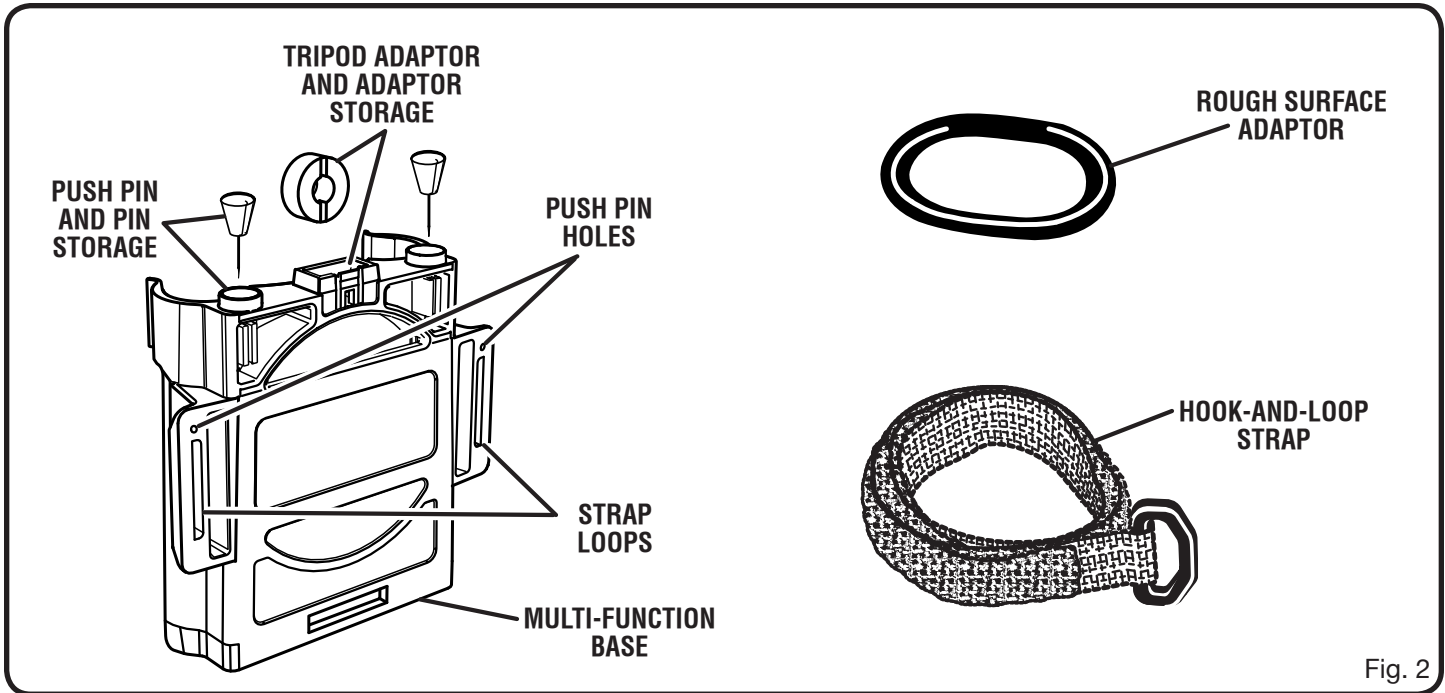


Fig. 2

## KNOW YOUR CROSSHAIR LASER LEVEL

See Figures 1 - 2.

The safe use of this product requires an understanding of the information on the product and in this operator's manual as well as a knowledge of the project you are attempting. Before use of this product, familiarize yourself with all operating features and safety rules.

## ADJUSTMENT KNOBS

The rotational and line height adjustment knobs are used to fine tune your laser line settings.

## AIRGRIP VACUUM TECHNOLOGY

This product uses a vacuum base that can adhere to smooth surfaces. Using the vacuum seal prevents wall damage caused by nails or adhesive tape. The vacuum base also features a 5/8 in. - 20 tripod mount.

## HOOK-AND-LOOP STRAP

The hook-and-loop strap can be used to attach the unit to a variety of irregularly shaped surfaces.

## LASER HOUSING

The laser housing on your level rotates to allow for 360° of laser line coverage.

## LASER POWER/MODE SELECTOR

The laser power/mode selector is used to select one of three available operating modes — horizontal mode, vertical mode, or crosshair mode.

## MULTI-FUNCTION BASE

The multi-function base allows the laser level to be used on irregularly shaped walls or objects. It features built-in loops for a hook-and-loop strap, angled holes for push pins, and storage compartments for the push pins and the 1/4 in. tripod adaptor. The base also protects the unit when using on a dusty or dirty surface and during storage.

## ROUGH SURFACE ADAPTOR

The rough surface adaptor increases the number of surfaces on which the AIRgrip vacuum can be used.

## VACUUM BASE ON/OFF BUTTON

The vacuum base of your laser level conveniently turns on and off at the touch of a button.

# ASSEMBLY

## UNPACKING

This product has been shipped completely assembled.

- Carefully remove the product and any accessories from the box. Make sure that all items listed in the packing list are included.
- Inspect the product carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the product.
- If any parts are damaged or missing, please call 1-800-525-2579 for assistance.

## PACKING LIST

Crosshair Laser Level	Hook-and-Loop Strap
AA Batteries (4)	Tripod Adaptor
Rough Surface Adaptor	Case
Multi-Function Base	Operator's Manual
Push Pins (2)	

### **WARNING:**

If any parts are damaged or missing do not operate this product. Please return to the place of purchase or call 1-800-525-2579 for assistance.

### **WARNING:**

Do not attempt to modify this product or create accessories not recommended for use with this product. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.

# OPERATION

### **WARNING:**

Do not allow familiarity with this product to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

### **WARNING:**

Do not use any attachments or accessories not recommended by the manufacturer of this product. The use of attachments or accessories not recommended can result in serious personal injury.

## APPLICATIONS

You may use this product for the purposes listed below:

- Aligning multiple pictures on a wall
- Aligning wallpaper borders or chair rails
- Lining up floor or wall tile

## INSTALLING BATTERIES

See Figures 3 - 4.

There are two battery compartments for the laser level, one for the AIRgrip vacuum and one for the laser.

### To install batteries for the AIRgrip vacuum:

- Locate the battery compartment on the base of the laser level and remove the battery cover plate.

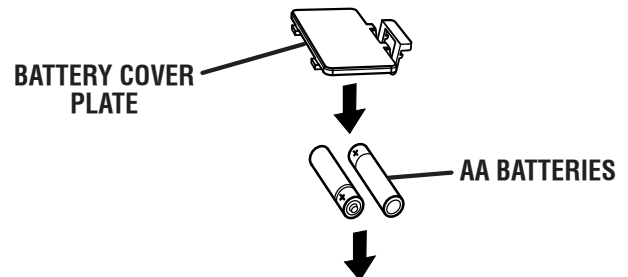


Fig. 3

- Install two AA batteries according to polarity indicators (+ or -) inside the battery compartment.
- Reinstall the battery cover plate.

### To install batteries for the laser:

- Rotate the line height adjustment knob to raise the laser lens housing to its highest position.



# OPERATION

- Rotate the laser lens housing until the battery compartment comes into view.
- Remove battery cover plate.
- Install two AA batteries according to polarity indicators (+ or -) inside the battery compartment.
- Reinstall the battery cover plate.

**NOTE:** Remove the batteries from both the vacuum base and the laser if you will not be using the unit for an extended time.

## TURNING THE VACUUM BASE ON/OFF

See Figure 5.

Press the button located on the right side of the vacuum base to turn it on and off. Always wait for at least 5 seconds between stopping and restarting the unit.

## USING THE AIRGRIP VACUUM

See Figure 5.

Vacuum grip technology allows the unit to be attached to most smooth surfaces.

**NOTE:** The multi-function base is not used when mounting by vacuum grip.

- Place the unit on the surface you want it secured to and press against the surface slightly to seal.
- Continue to hold the unit against the surface while pressing the on/off button.
- Slowly release the unit when you hear a change in motor sound.

**NOTE:** Before releasing the unit, make sure the unit is securely adhered to the surface.

**NOTE:** To release the vacuum seal, turn the power to the vacuum base off. For fast release, press the vacuum release button located on the left side of the unit. Pulling the unit off the wall without releasing the vacuum could damage the product.

- To reposition the laser level while it is adhered to a surface, depress the vacuum release button while allowing the AIRgrip vacuum to continue running. This will release the seal enough to allow you to slide the unit to a different position.

## TURNING THE LASER ON/OFF

See Figure 6.

Depressing the on/off button located on the top of the laser level cycles the laser through three different operational modes.

- Depress the button once to turn on a horizontal laser line.
- Depress the button again to switch to a vertical line.
- Depress the button a third time to switch to the crosshair laser line.
- Turn the laser off by depressing the button a fourth time.

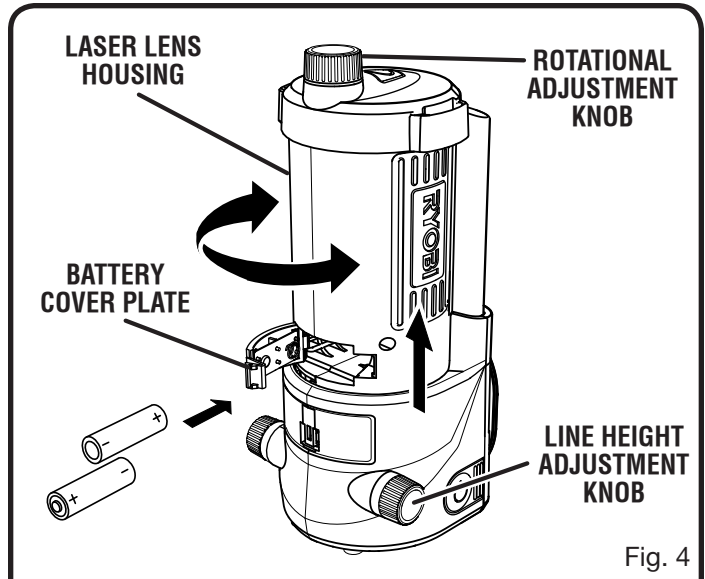


Fig. 4

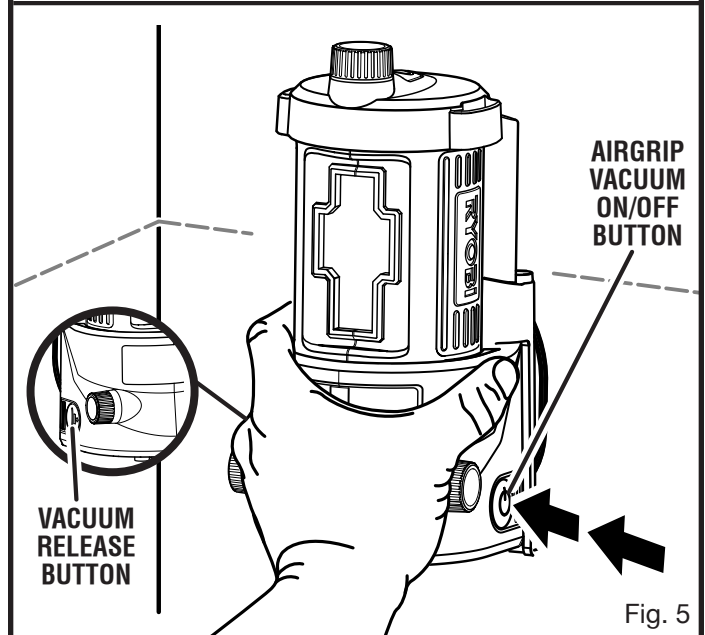


Fig. 5

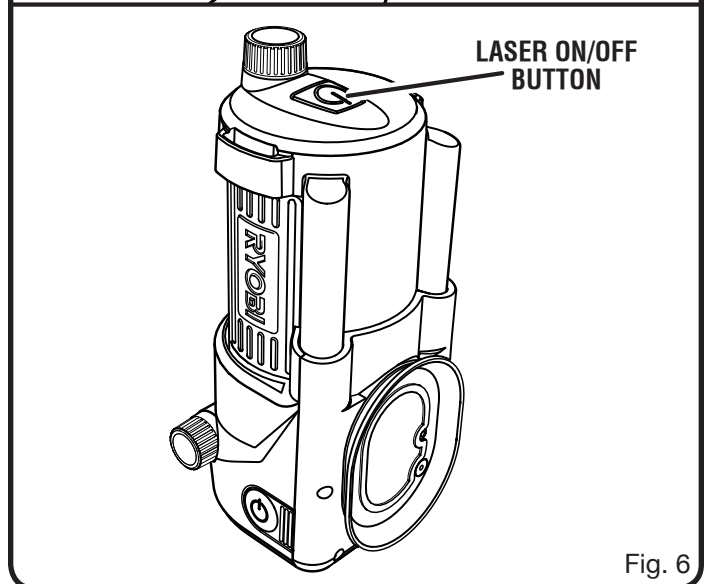


Fig. 6

# OPERATION

## ROUGH SURFACE ADAPTOR

See Figure 7.

By using the rough surface adaptor, you can use the AIRgrip feature to position the unit on many non-smooth surfaces, including brick and painted cinder block.

**NOTE:** The AIRgrip feature cannot be used with stucco or unpainted cinder block.

- Place the adaptor over the AIRgrip base.
- Place the unit against the desired surface and press slightly to engage the seal.
- Continue to hold the unit against the surface while pressing the on/off button.
- Slowly release the unit when you hear a change in motor sound.

### CAUTION:

Before releasing the unit, make sure the unit is securely adhered to the surface.

## USING THE MULTI-FUNCTION BASE

See Figures 8 - 9.

Hook-and-loop strap and push pin methods are available when the multi-function base is installed. To install, snap the base over the AIRgrip vacuum seal.

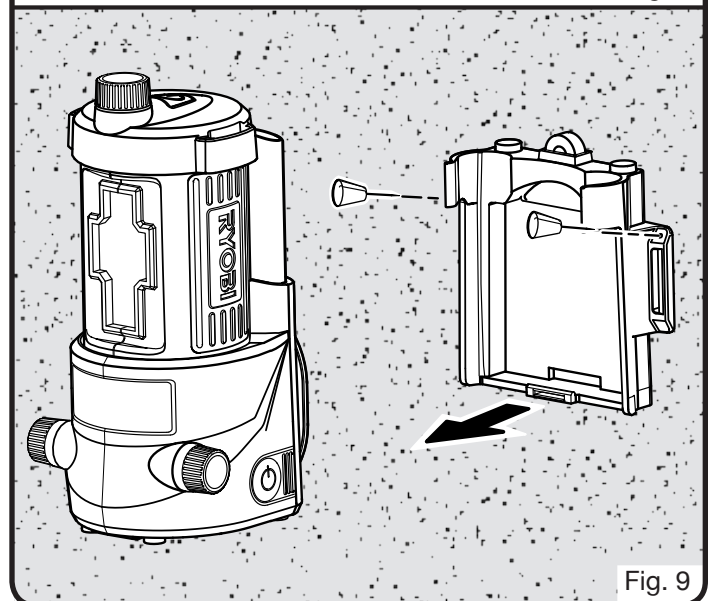
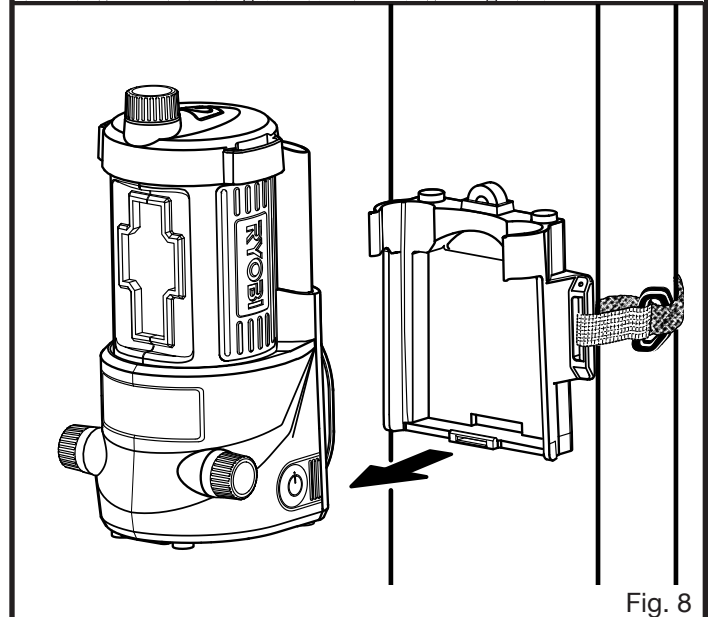
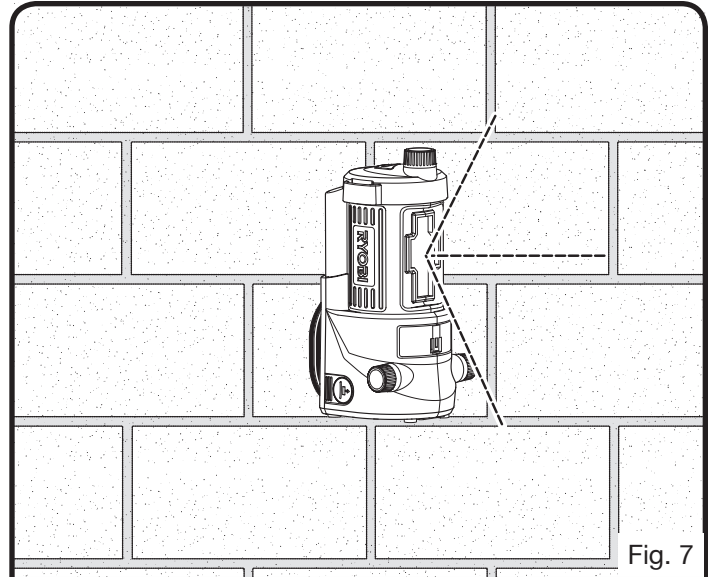
**HOOK-AND-LOOP STRAP:** The strap can be used to attach the laser level to irregularly shaped objects such as pipes, boards, or metal grates.

- Attach the strap to the multi-function base by threading it through the loops. The looped (or fuzzy) side of the strap should face the base.
- Position the laser level against the surface where you want it mounted.
- Wrap the strap around the object being mounted (pipe, board, etc.) and pass the end of the strap through the retaining loop. Pull to tighten.
- Place the hooked end of the strap against the looped (or fuzzy) side of the strap and press together to secure.

**NOTE:** To use the hook-and-loop strap to hang the unit from overhead, use the loops on top of the laser level housing.

**PUSH PINS:** Push pins allow the laser level to be mounted to stucco and permeable surfaces.

- Place the laser level on the surface where you want it mounted.
- Align push pin with angled hole located on one side of laser level base and push in to secure.
- In the angled hole on the other side of laser level base, secure the second push pin.



# OPERATION

## USING A TRIPOD

See Figure 10.

The laser level has a 5/8 in.-20 threaded fitting for attaching to a tripod base (not included). This method of mounting is ideal for leveling kitchen cabinets, countertops, window framing, and more.

If a 1/4 in. tripod fitting is needed, thread the adaptor inside the 5/8 in. mounting hole and tighten with a flat blade screwdriver before attaching to tripod.

### CAUTION:

Use caution when using laser level in base. Do not orient in a way that will allow the laser level to slide or fall out of the base.

## OPERATING THE LASER LEVEL

See Figures 10 - 11.

### WARNING:

The typical alkaline battery life for the AIRgrip vacuum system is four hours. Replace with fresh alkaline batteries prior to four hours of use. Failure to heed this warning could result in damage to the product and/or serious personal injury.

- Before initial use, wipe AIRgrip vacuum base with a damp cloth to remove any residue.
- Place the level in the area where you want the laser lines projected. Refer to **Using the AIRgrip Vacuum** or **Using the Multi-Function Base** earlier in this manual if adhering to a surface is desired.
- Turn on the laser.
- Rotate the laser housing to position the laser lines in the general area desired. Then use the adjustment knobs to fine-tune the line position.

**NOTE:** Due to construction inaccuracy, walls may not be perfectly straight. This may cause the laser to have slight variances when in the level position.

- The laser level is self-leveling when used within the product specifications listed earlier in this manual. If operating outside of the specifications listed, the laser line will appear to have a textured pattern.

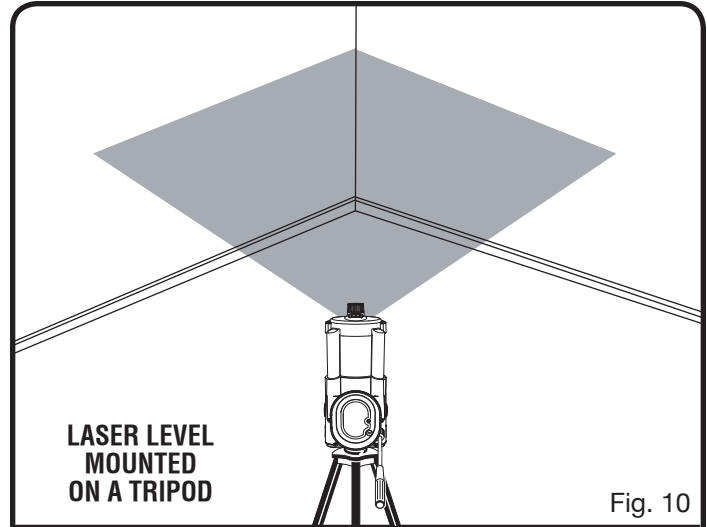


Fig. 10

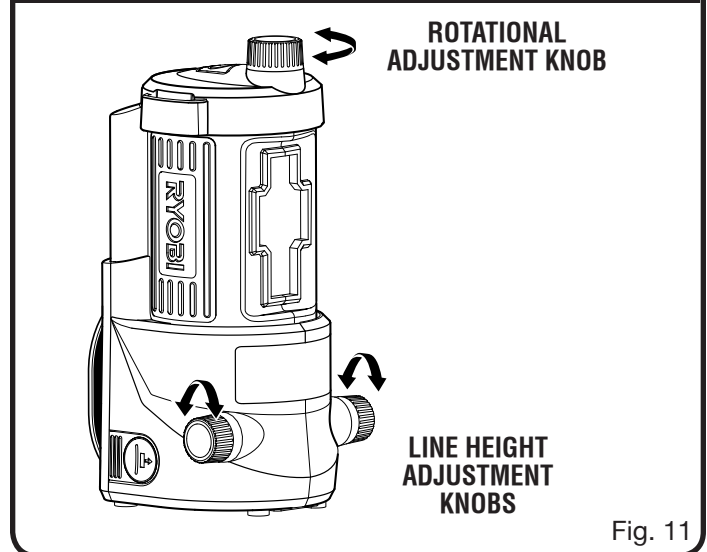


Fig. 11

### WARNING:

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

# MAINTENANCE

## **⚠ WARNING:**

To avoid serious personal injury, always remove the batteries from the product when cleaning or performing any maintenance.

## GENERAL MAINTENANCE

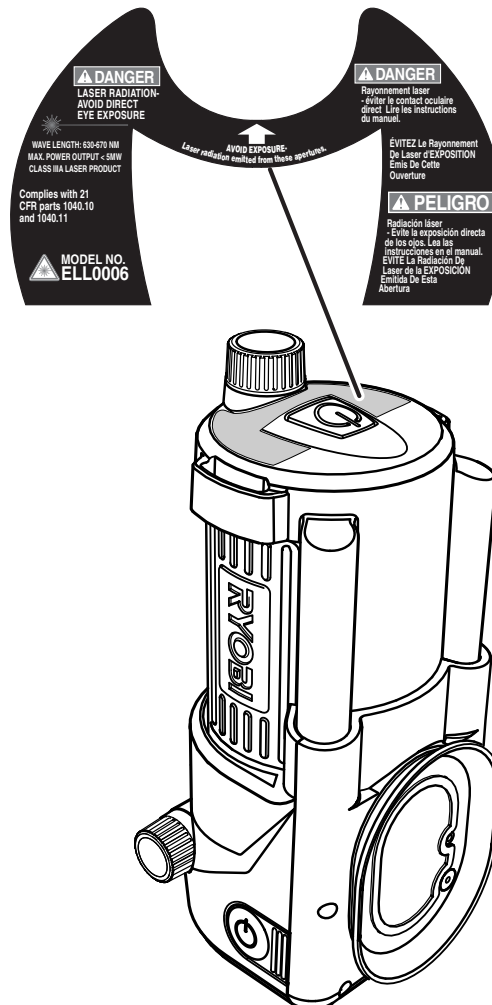
Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

## **⚠ WARNING:**

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc., come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.

- Store the unit indoors.
- When not in use, the vacuum base and attachments should be kept in the protective case.
- Keep the unit free of dust and liquids. Use a damp cloth and mild soap to clean the outside casing. Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use.
- To clean the laser lens, if needed, use ONLY a soft cloth or cotton swab moistened with glass cleaner.
- Check the batteries regularly to avoid deterioration. Remove the batteries from both the vacuum base and the laser if you will not be using the unit for an extended time.
- Do not disassemble the laser level. This could cause exposure to hazardous laser radiation.
- Do not attempt to change any part of the laser lens.

ALWAYS BE AWARE of the location where the laser light is emitted when using the laser level attachment. ALWAYS MAKE SURE that any bystanders in the vicinity of use are made aware of the dangers of looking directly into the laser beam.



## TROUBLESHOOTING

Problem	Possible Cause	Solution
Vacuum not running.	Batteries are low. Power is turned off.	Replace batteries. Press on/off button.
Laser line projection is weak.	Batteries are low.	Replace batteries.
Laser line is hard to see.	Light in area is too bright.  Line is being projected beyond the specifications listed earlier in this manual.	Dim light in the work area or use laser-enhancing glasses.  Relocate laser level so that line is projected within specifications listed earlier in this manual.
Laser line is not working.	Power is not on. Batteries are low.	Press the on/off button. Replace batteries.
Laser line is dim.	Batteries are low.	Replace batteries.
Vacuum base won't stick to wall.	Surface is incompatible for vacuum.	Use rough surface adaptor on stucco and textured surfaces.



# OPERATOR'S MANUAL

## AIRgrip™ ProCross™ LASER LEVEL

### SELF-LEVELING

### ELL0006

- **SERVICE**

This product has no serviceable parts. If unit fails due to normal wear and tear within two years of purchase, return with original receipt for a replacement unit at no charge. Please call 1-800-525-2579 for the nearest Authorized Service Center. You can also check our web site at [www.ryobitools.com](http://www.ryobitools.com) for a complete list of Authorized Service Centers.

- **MODEL NO. AND SERIAL NO.**

The model number of this product will be found on a label attached to the laser level. Please go to [www.ryobitools.com](http://www.ryobitools.com) to register this product.

- **HOW TO ORDER REPAIR PARTS**

When ordering repair parts, always give the following information:

- MODEL NUMBER ELL0006

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### ONE WORLD TECHNOLOGIES, INC.

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